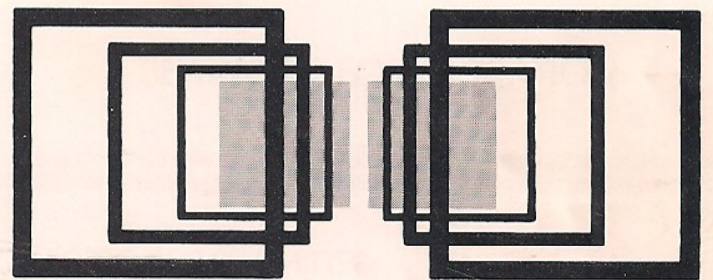


# OPERATING GUIDE & WARRANTY



ZENITH  
*Allegro*  
SOLID-STATE  
CONSOLE STEREO



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NOTE: The model and serial numbers of your Zenith Stereo are located on the back of the cabinet. For your convenience and protection, please record these numbers in the spaces provided below and retain this booklet for future reference.

Model No. JR 966 P Serial No. R 029503 459



## SETTING UP FOR OPERATION

Your new Zenith Stereophonic System will play two channel stereophonic programs and any conventional monaural program material. Following are a few preliminary instructions to ready your system for operation.

Remove all packing materials. Turn the base plate mounting bolts on record changer (See Fig. 4) clockwise until they are even with the base plate. Remove the cardboard strips from either side of record changer, if present.

Connect the AC line cord into a household electrical outlet (110 to 125 Volts, 60 Hz AC). The unit is now ready for operation.

Before operating, we suggest you first glance through the Operating Guide to obtain a general idea of the purpose of the various controls and main features. However, after you have become familiar with the basic controls, please be certain you are obtaining the full benefit of all the capabilities engineered into your new Zenith Stereophonic System, by carefully rereading the complete Operating Guide.

**WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.**



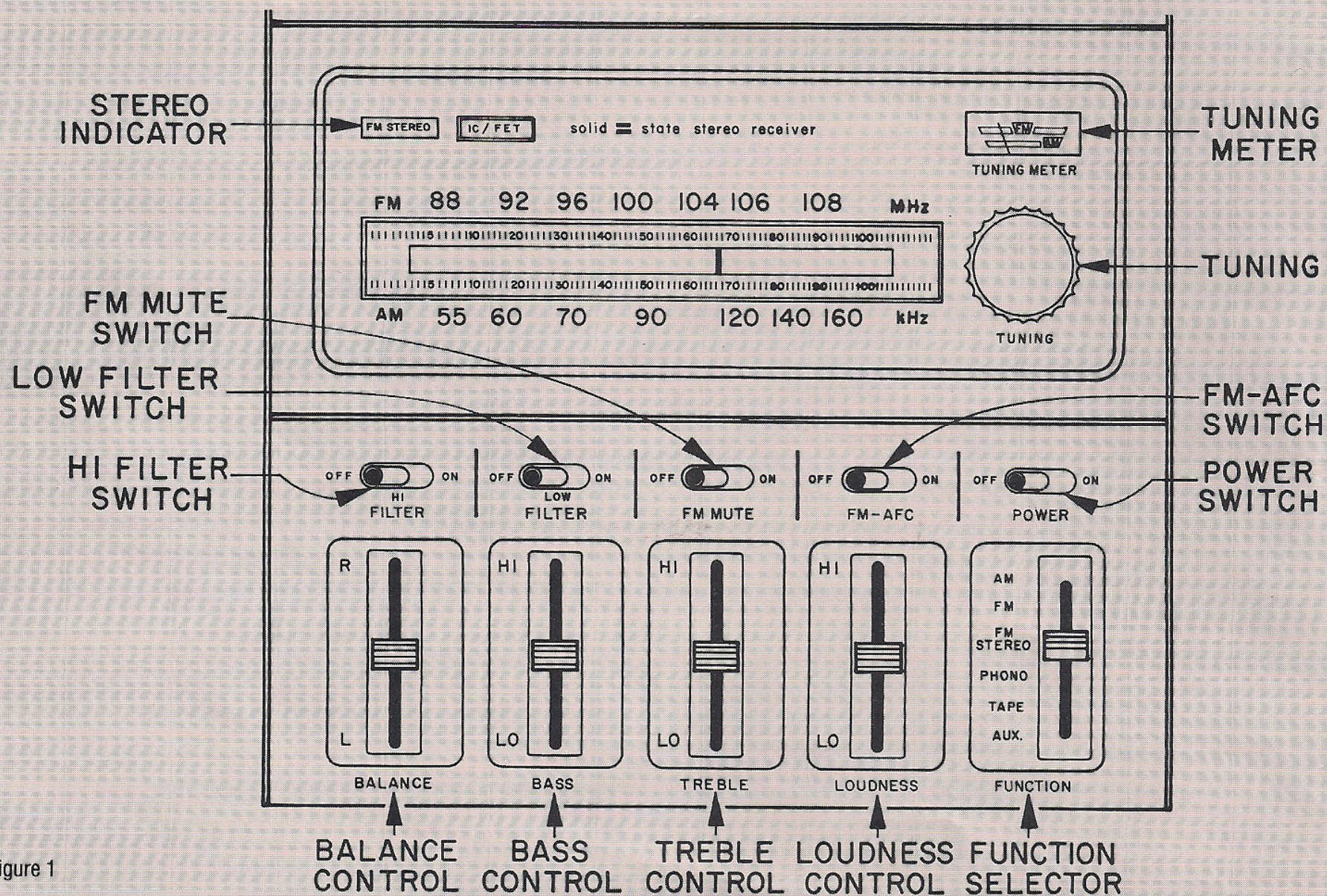


Figure 1



## TUNER/AMPLIFIER SECTION— CONTROLS AND TUNING (Fig. 1)

**ON/OFF POWER Switch** – Move right to turn set on. Move left to turn set off. (The main unit also will turn on when the Record Changer Mode Selector is in the START position, even if the main unit's ON/OFF POWER Switch is in the OFF position. However, for playing all functions except PHONO, keep the Record Changer Mode Selector in the STOP position.)

**FUNCTION Selector** – Move (up or down) to select program source. In the AM, FM or FM STEREO positions, only the tuner (radio) will operate. In the TAPE position the built-in tape unit will be connected for playing tapes. Move to the AUX position if you want to play external accessories (tape decks, etc.). In PHONO, the Record Changer is connected for playing records. The positions of the FUNCTION Selector (AM, FM, FM Stereo, etc.) are individually illuminated as the FUNCTION Selector is moved. They show which function is in use and serve as a pilot light.

**Tone Controls** – This unit is equipped with special boost/cut tone controls. BASS Control slides up and down to vary intensity of the lower tones. Slide towards HI to boost (increase) bass; towards LO to cut (decrease). TREBLE Control slides up and down to vary intensity of higher tones. Slide towards HI to boost brilliance; towards LO to cut. Response of both channels of your system is controlled simultaneously by these controls.

**LOUDNESS Control** – This unit uses a compensated Volume

Control known as a LOUDNESS Control. It automatically boosts high and low frequencies for better quality listening at low sound levels. Both channels are adjusted simultaneously.

**BALANCE Control** – Controls the amount of sound output from left and right speakers. To balance sound, set the unit for AM or FM Monaural operation; adjust LOUDNESS as desired; then slide BALANCE control up or down until the sound appears to come from a point midway between the two speakers. Move towards R for more sound from righthand speaker; towards L for more sound from left speaker.

**TUNING, AM Band** – Set the FUNCTION Selector to AM. Rotate the TUNING Knob slowly until the station that you desire is tuned in. Proper tuning is indicated by greatest movement of pointer to the right on Tuning Meter. (See "Tuning Meter.") Readjust the Tone and LOUDNESS Controls to your taste.

**TUNING, FM Band** – Move FUNCTION Selector to FM or FM STEREO. Move AFC Switch to "Off" to attain sharper tuning. Rotate the Tuning Knob slowly until the desired station is located. A hissing sound may be noted between stations. This is normal and will disappear as the station is tuned in (unless station is very weak). Proper tuning is indicated by clearest noise-free sound and proper reading of Tuning Meter. (See "Tuning Meter" and "FM MUTE" Sections.) Now set AFC Switch to "On" to lock-in station.



When the desired FM station is a weak station, adjacent in frequency to a strong station, the AFC may pull the tuning into the stronger station. Under these conditions, leave the AFC switched OFF.

**Radio Dial Scale – AM Band** – The AM scale is calibrated from 55 to 160. A station listed as operating on 600 kHz, for example, will be found at 60 on the dial scale. A station listed at 1400 kHz will be found at 140. **FM Band** – The FM dial scale is calibrated from 88 to 108 MHz.

**TUNING Meter** – Shows proper tuning on AM and FM. In AM operation, proper tuning is shown by greatest pointer movement to the right. (Stronger stations produce further pointer movement.) When operating on FM, you are properly tuned when the pointer is centered between maximum left and right swings for the station you are tuning.

**FM STEREO Indicator Light** – When the FUNCTION Selector is set to FM STEREO and you tune to a stereo FM broadcast, the FM STEREO Light will illuminate, indicating the tuner is receiving a stereophonic program. If you tune to a monaural FM broadcast, the FM STEREO Light will not illuminate, since the tuner is receiving a monaural program. The Stereo Indicator Light will operate only in the FM STEREO position (NOT in the FM position).

**AFC SWITCH** – Automatic Frequency Control (Switch located on front panel) keeps the receiver on the exact station frequency when tuned to an FM station. See "TUNING – FM BAND" for details.

**HI FILTER** – Reduces high audio frequencies for decreasing the noise ordinarily heard with "scratchy" or noisy records or tapes and on weak FM stations.

**LO FILTER** – Reduces low frequency noise.

**FM MUTE** – Cuts out the "hiss" or noise usually heard on the FM band when tuning between stations. Very weak FM stations with a high noise level may be blanked out by the FM MUTE feature. If the station you want to hear is very weak, simply leave the FM MUTE Switch in the OFF position. See "TUNING – FM Band" for more FM tuning tips.

## SPEAKER JACKS AND SELECTOR SWITCH

**EXTENSION SPEAKER JACKS (Fig. 2A)** – If your room will accommodate additional speakers, or if you decide to place extension speakers in another room, Zenith extension speakers Models J1000, J2000, or J3000 (8 ohm impedance) may be purchased from your dealer.

These speakers are connected to the Jacks marked EXT. SPKR. on the back of the stereo cabinet.

**HEADPHONE JACK (Fig. 2B)** – Located on inside back of cabinet. Plug in headphones here for private listening. See section on Speaker Selector Switch for details.

**SPEAKER SELECTOR SWITCH (Fig. 2B)** – This switch located on inside back of cabinet, controls operation of the built-in speakers and any external speakers connected to your unit. It also controls headphone operation.



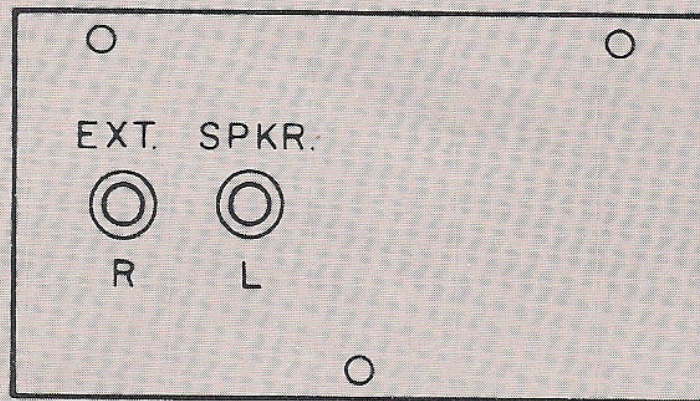


Figure 2A

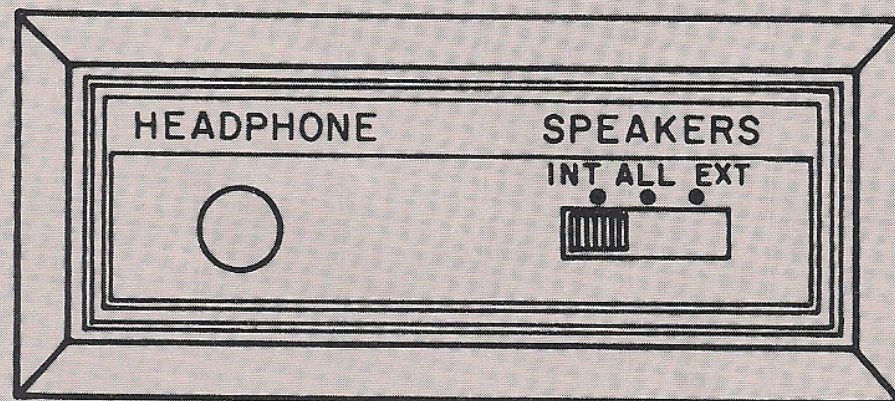


Figure 2B

**In the INT Position.** Place the switch in the INT position for stereo sound through the built-in speakers of your stereo cabinet. If you have connected external speakers to your cabinet, they will not be operative in this mode. If headphones are plugged into the headphone jack, you will receive full sound in your headphones, but no sound through the built in or external speakers.

**In the ALL Position.** Place the switch in the ALL position for stereo sound through the built-in speakers of your stereo system, and from any external speakers you may have connected to the cabinet. This is ideal for the enjoyment of stereo sound in more than one room at a time. If headphones are plugged into the headphone jack, you will

receive full sound in your headphones but no sound through the built-in speakers of your stereo cabinet or external speakers.

**In the EXT Position.** Place the switch in the EXT position for stereo sound from any external speakers you have connected to your stereo cabinet. The built-in speakers in your cabinet, however, will not be operative in this mode. This allows for enjoying stereo sound in a room other than the one in which your stereo cabinet is kept. If headphones are plugged into the headphone jack, you will receive full sound in your headphones, full sound from the external speakers and no sound from the built-in speakers of the stereo cabinet.



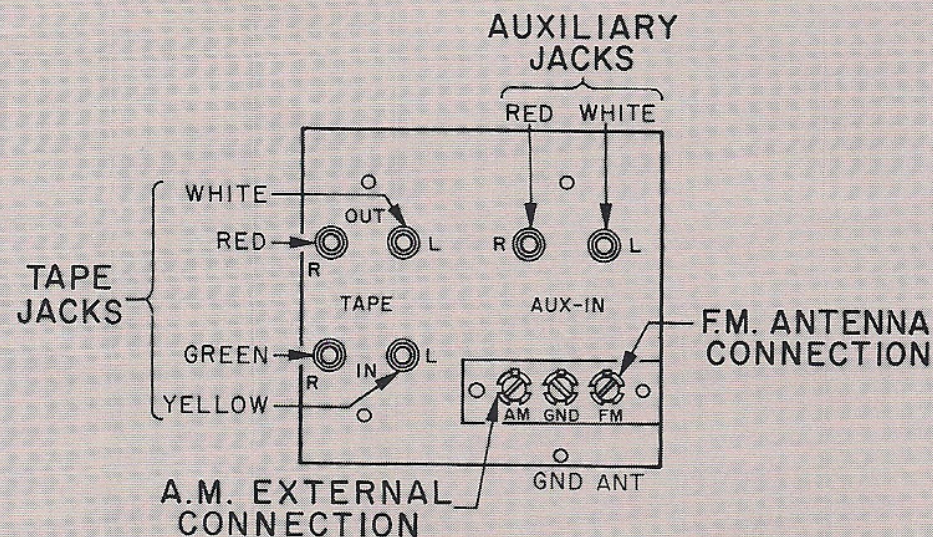


Figure 3

## ACCESSORY JACKS AND FM ANTENNAS

**AUX INPUT, TAPE INPUT and TAPE OUTPUT JACKS (Fig. 3)**—These jacks allow you to connect additional accessories to expand your stereo system's capabilities. For directions, see "HOW TO USE ACCESSORIES WITH YOUR ZENITH STEREO SYSTEM" on page 20.

**FM ANTENNA Terminals** — The built-in FM Antenna is designed for FM reception in locations where fairly strong signals are received from the transmitting station. In locations where reception with the built-in antenna is marred by noise or distortion due to weak signals, it is important that an external FM antenna be used. Also, in areas of marginal reception, a better antenna may be needed for stereophonic FM reception than for conventional

monophonic FM. Zenith Model 973-241A or 973-242 is recommended.

To connect the lead-in from the external FM antenna to the receiver, first disconnect the built-in antenna. Connect the external 300 ohm antenna lead-in to the FM ANTENNA Terminals.

## RECORD CHANGER OPERATION

### AUTOMATIC RECORD CHANGER OPERATION

**For playing several records in sequence (Fig. 4)**, Be sure any tape used to secure the Tone Arm is removed and the Base Plate Mounting Bolts are turned fully clockwise before placing the changer in operation.

1. Move the main unit's FUNCTION Selector to PHONO. The



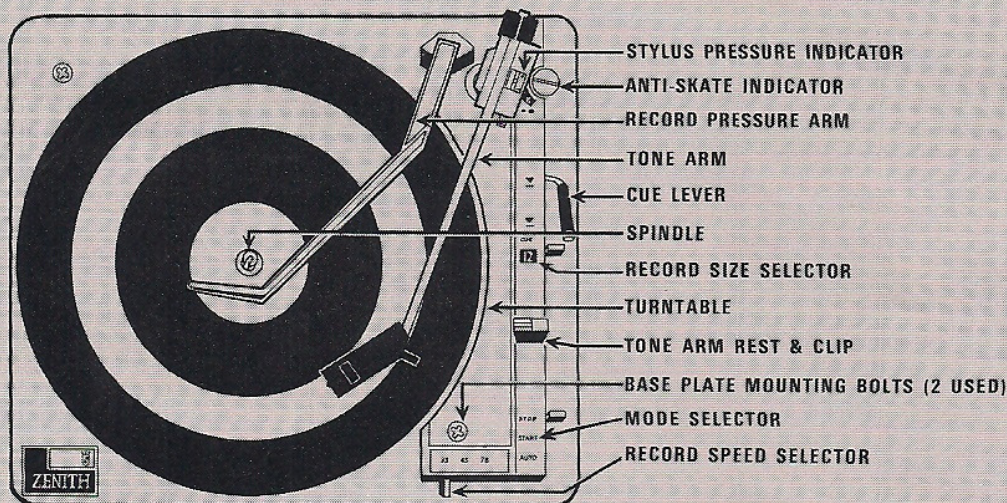


Figure 4

Mode Selector (STOP, START, AUTO) on the record changer will control power to the changer and, if the POWER Switch (Fig. 1) is off, to the main unit.

- Carefully grasp the rear portion of the Record Pressure Arm, gently lift to its full height, and rotate it counter-clockwise to its stopping point over the Tone-Arm. Place records on the Spindle. Return Record Pressure Arm to original position. This changer will play as many as five (flat and unwarped) records in 12-inch, 10-inch or 7-inch size. DO NOT INTERMIX RECORD SIZES.

CAUTION: Do not lift Record Pressure Arm when changer is in cycle.

- Move Speed Selector to proper speed for the records to be played (33, 45, or 78).
- Move the Record Size Selector to correspond to size of

records to be played (12, 10, or 7).

- Move the Mode Selector on the changer to AUTO position and release it. The record will drop down onto the turntable and the Tone Arm will set down on the record.
- Adjust LOUDNESS, BASS and TREBLE controls (main unit).
- When the first record is finished playing, unit will automatically play the next record resting above on the spindle. After the last record is played, the Tone Arm will return to the Tone Arm Rest and the entire unit will shut off (if POWER Switch on main unit is off). If POWER Switch is on, Record Changer only will shut off.

Note: To reject a record during play, simply move the Mode Selector to the AUTO position and release it. To repeat last record, lift Record Pressure Arm up and rotate counter-



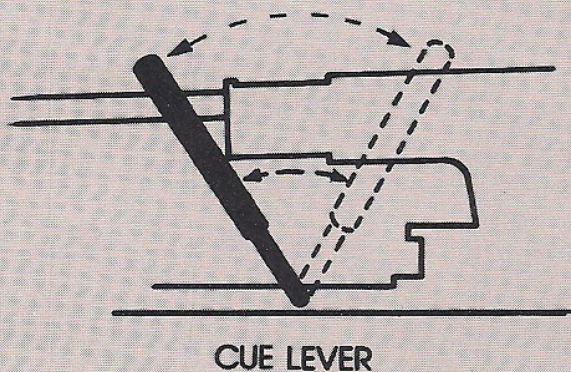


Figure 5

clockwise to its stopping point over Tone Arm Rest. If Record Pressure Arm is up, unit must be turned off manually (move Record Pressure Arm down over the spindle and move Mode Selector to AUTO position).

#### MANUAL OPERATION OF RECORD CHANGER

**For playing single records manually – (Fig. 4).** Be sure any tape used to secure the Tone Arm is removed and the Base Plate Mounting Bolts are turned fully clockwise before placing the Record Changer in operation.

1. Move the main unit's FUNCTION Selector to PHONO. The Mode Selector (STOP, START, AUTO) on the changer will control power to the changer and, if the POWER Switch is off, to the main unit.
2. Remove long spindle. (Hold turntable down with one hand, twist spindle slightly and pull it out firmly with other

hand.) Insert short spindle in hole. See Fig. 6.

3. Carefully grasp the rear portion of the Record Pressure Arm, gently lift to its full height, and rotate it counterclockwise to its stopping point over the Tone Arm. Place record on turntable.
4. Move Speed selector to proper speed for record to be played (33, 45, or 78).
5. Move Record Size Selector to correspond to size of record to be played (12, 10, or 7).
6. Move the Record Changer Mode Selector to the START position.
7. Adjust LOUDNESS, BASS and TREBLE Controls (Fig. 1).
8. Raise the Tone Arm from the Tone Arm Rest by moving the Cue Control Lever in the direction that lifts the Tone



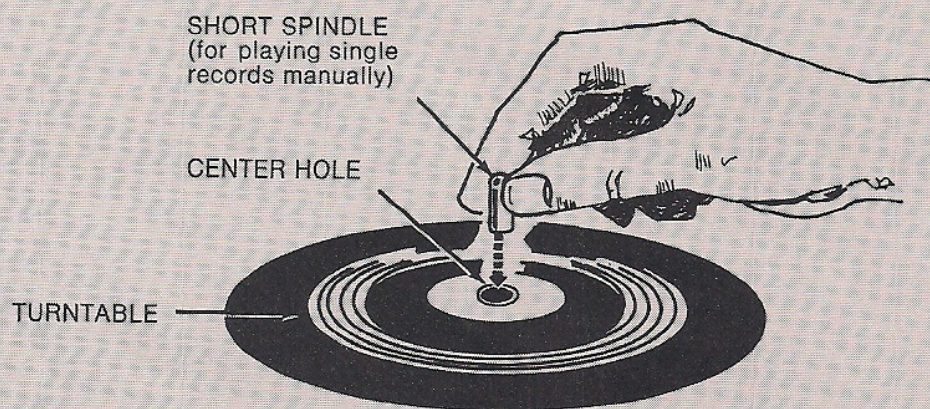


Figure 6

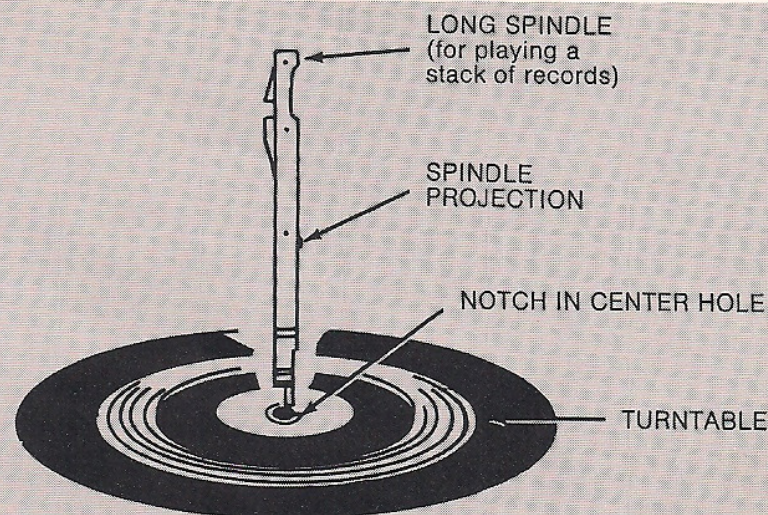


Figure 7

Arm. (See Fig. 5). Carefully move the Tone Arm over the record until you reach the selection you want to listen to. Now, move the Cue Control Lever in the direction that lowers the Tone Arm onto the record. When the record is finished playing, it will repeat if the record pressure arm is up. If the record pressure arm is down over the spindle, the entire unit will shut off, if POWER Switch on main unit is off. If POWER Switch is on, Record Changer only will turn off.

9. To reinstall long spindle: remove short spindle. Insert long spindle into turntable center hole so spindle projection (See Fig. 7) fits into notch on side of hole. Press firmly until spindle clicks into place.

#### **CUE AND PAUSE** (Refer to Figure 5)

This cueing device may be used to assist in placing the Tone

Arm on a record. It permits the Tone Arm to be raised from and lowered onto any part of the record without damage to the record, if used carefully. It may also be used as a "Pause" control (See item 8 under MANUAL RECORD CHANGER OPERATION.)

#### **PLAYING 45 R.P.M. RECORDS**

To play 45 R.P.M. records, you will need the 45 R.P.M. adapter. Extra Zenith 45 R.P.M. adapters, as shown in Figure 8, are available as Zenith Part No. S-72910. To install this R.P.M. adapter; grasp as shown in the illustration and point it at the left front corner of the record changer. Place the adapter over the spindle and press it down firmly as far as it will go on the spindle. Small disc-shaped 45 R.P.M. adapters (which fit into the center hole of 45 R.P.M. records) are also available at most record stores.



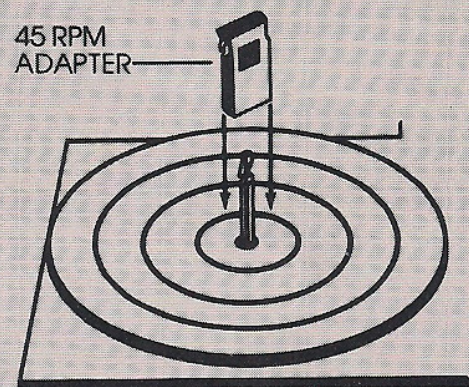


Figure 8

### PLAYING 78 R.P.M. RECORDS

The diamond stylus (needle) on your record changer is not designed to play 78 R.P.M. records. You will need to get a different stylus so you will not damage your records or needle. These are available from your Zenith dealer as Zenith Part No. 56-641-O1.

### MAINTENANCE

#### TONE ARM HEIGHT ADJUSTMENT (Refer to Figure 9)

The Tone Arm Height Adjustment Screw adjusts the height of the Tone Arm above the Turntable during the change cycle.

To raise the Tone Arm height, hold the Height Adjustment Nut firmly and turn the Height Adjustment Screw counterclockwise. To lower the Tone Arm height, turn the Height

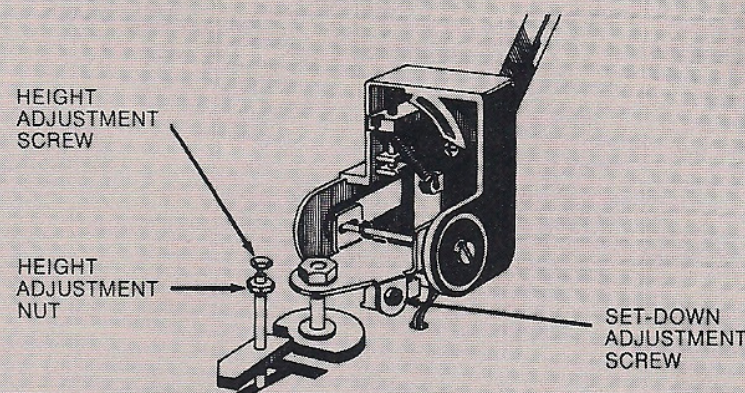


Figure 9

Adjustment Screw clockwise.

The Tone Arm height should be adjusted so that it will lift 1/8 inch straight up over a 1/2 inch stack of records as the change cycle starts.

#### TONE-ARM SET-DOWN ADJUSTMENT (Refer to Figure 9)

The Tone Arm Set-Down Adjustment Screw adjusts the point at which the Tone Arm will set down on the edge of the record.

If the stylus falls off the record lift the Tone Arm and turn the Set-down Adjustment Screw a small amount until the stylus lands in the correct position. Use a 12 inch record to make this adjustment. When the stylus set-down is adjusted properly for a 12 inch record, it will automatically be correct for 7 and 10 inch records.



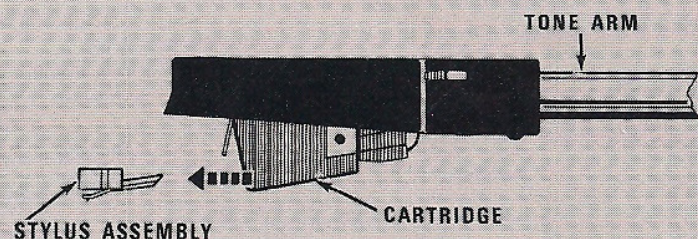


Figure 10

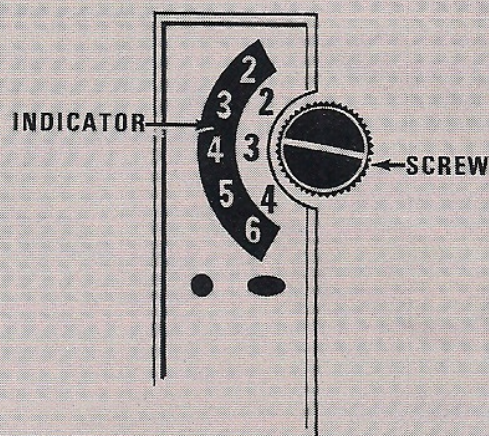


Figure 11

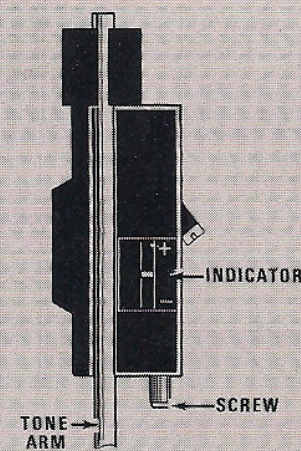


Figure 12

## IMPORTANT!

### RECORD AND STYLUS (NEEDLE) CARE

**Keep Clean** – Proper care of your records and phonograph stylus will provide many hours of trouble-free operation. Avoid the use of record-cleaning sprays. Keep records free of dust by storing in their jackets when not in use. For best results, clean the stylus weekly with a suitable stylus cleaner\* or high purity isopropyl alcohol on a small stylus cleaning brush\* or a small artist's-type brush.

**Check for Wear** – Check the stylus for wear every 100 operating hours or less with a stylus microscope.\* The stylus should be replaced after approximately 400 operating hours. As the stylus wears, flat spots on the stylus will tend to remove the high frequencies from your records. Once destroyed, these high frequencies are permanently lost

from the records and will cause noticeable loss of fidelity. A worn stylus should be replaced for best stereo performance and for prolonging the life of your records.

### REPLACING THE STYLUS (See Figure 10)

Lift the Tone Arm and grasp the stylus assembly. Pull it straight out of the cartridge as shown in the illustration. To install a new stylus, insert it back into the cartridge firmly. Replacement part number is Zenith Part No. 56-641.

### STYLUS PRESSURE AND ANTI-SKATE ADJUSTMENT (Figure 11-12)

Both of these controls have been factory pre-set for proper operation. THEY SHOULD NOT NEED ADJUSTING. Improper adjustment can cause permanent damage to your records or stylus. Adjustment should only be made by a qualified Zenith distributor-approved service technician.

\*May be purchased in most record stores



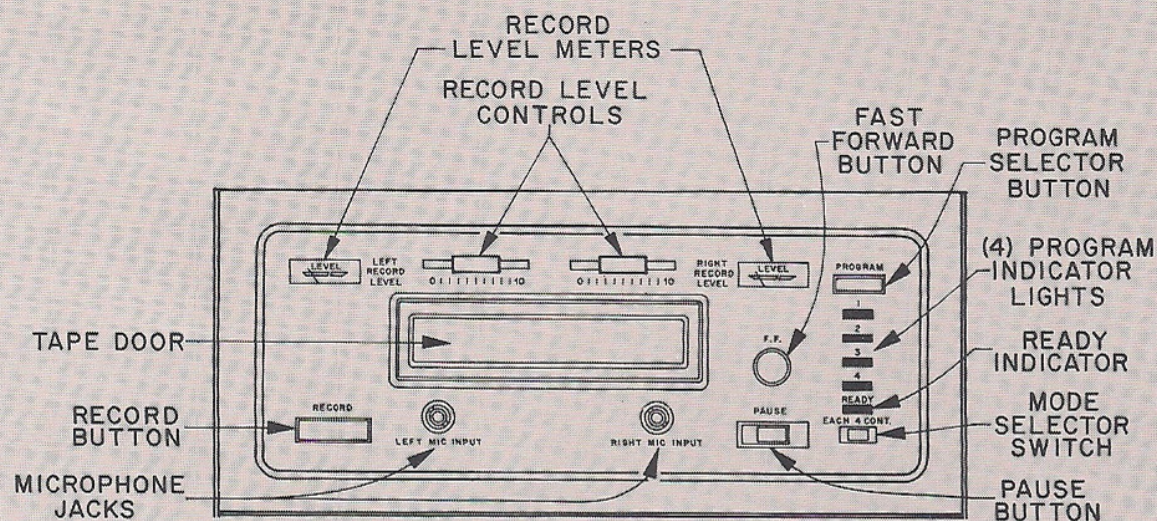


Figure 13

## TAPE RECORDER CONTROLS (Fig. 13)

**PROGRAM Selector Button.** Depressing this Button will advance the tape to the next Program.

**Program Indicator Lights.** These Lights indicate which of the four Programs is being played or recorded.

**TAPE Mode Switch.** This Switch has three positions, "EACH," "4," and "CONT." When the Switch is in the "EACH" position, the tape will operate until the end of the Program being used, index to the next Program, illuminate the READY Indicator Light, and stop. In the "4" position, the tape will operate to the end of Program 4, index to the beginning of Program 1, illuminate the READY Indicator Light, and stop. In the "CONT." position, the tape will operate continuously until the cartridge is removed.

**NOTE:** After the unit has stopped in either the "EACH" or "4" positions, it may be restarted by moving the Tape Mode Switch to the "CONT." position.

**READY Indicator Light.** This Light indicates that the power is ON, and the unit is ready to operate. It will only be illuminated at the end of each Program when the Tape Mode Switch is in the "EACH" position, or at the end of Program 4 when the Tape Mode Switch is in the "4" position.

**FAST FORWARD (F.F.) Button.** Pressing this Button will rapidly advance the tape. Pressing it again will return the tape to normal speed. You CANNOT record in FAST FORWARD.

**NOTE:** If the cartridge is removed from the unit while the F.F. Button is depressed, the FAST FORWARD Button will disengage.



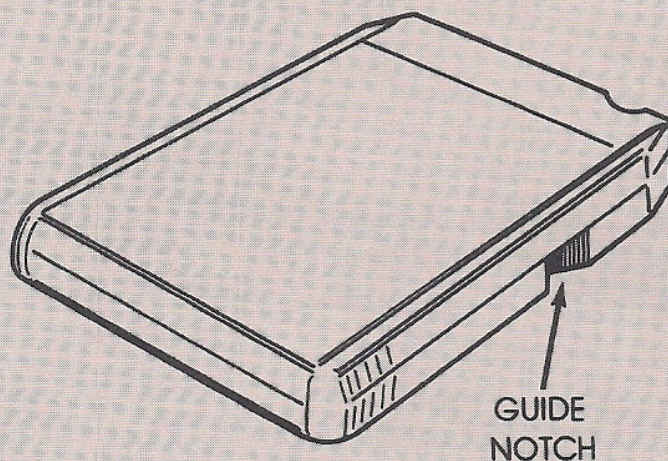


Figure 14

**PAUSE Button.** The PAUSE feature enables you to stop tape playback or recording momentarily. The PAUSE Button may be either a "slide-to-lock" type or a "push-push" type. If your set has a "slide-to-lock" type PAUSE Button, slide the button to the left while it is depressed to lock it in the PAUSE position. Slide it to the right to release it and to start tape movement again. With the "push-push" type PAUSE Button, press it once to stop tape, press again to restart tape movement. This control is especially helpful in recording as it allows you to stop and start the tape quietly and properly set recording controls. (See sections B and C on recording on the next page.)

**RECORD Button.** When you desire to make a recording, depress and hold this Button, while inserting a cartridge.

**CAUTION:** DO NOT depress the Record Button while inserting a prerecorded cartridge, or any previously recorded material will be erased.

**Record LEVEL Meters.** These Meters indicate the recording and relative playback level of each channel. During recording, the RECORD LEVEL Controls should be adjusted so that the pointers of the RECORD LEVEL Meters will enter the RED area of the Meters momentarily on loud sounds. The Meters will be illuminated only when you are recording.

**LEFT and RIGHT RECORD LEVEL Controls.** These Controls are used to adjust the input level to the tape unit during recording. They are inoperative during playback. The LOUDNESS control on main unit is used for playback volume control.



## TAPE RECORDER OPERATION:

### A. How to PLAY a Recording.

NOTE: Some 8-Track tape cartridges have a protective plastic end cover over the exposed tape. Be sure this is removed before the cartridge is inserted into the tape unit.

Move POWER Switch (Fig. 1) to ON.

1. Move the FUNCTION Selector (Fig. 1) to the TAPE position.
2. Insert a previously recorded 8-Track Cartridge (Guide Notch to the right, as shown in Fig. 14) into the Tape Slot. When the Cartridge is firmly seated, and locked-in, one of the four Program Indicator Lights will be illuminated to indicate the Program being played.
3. Adjust the LOUDNESS and Tone Controls on main unit as desired.
4. To select a different Program, depress the PROGRAM Selector Button.
5. If you wish to skip part of a Program, you may do so by depressing the Fast Forward Button. Press it again when you wish to return to normal operation.
6. If you wish to stop playback temporarily, use the PAUSE Button to stop tape movement (see p. 13, #6 for directions). To continue playback, release the PAUSE Button.
7. When you are finished listening, simply remove the Cartridge and move the POWER Switch to OFF. This will turn

off the power to the entire unit. The tape cartridge should be pulled completely out of the unit when not being used.

### B. How to Record with Microphone.

Move POWER Switch to ON (Fig. 1).

1. Slide LOUDNESS Control to LO position (Fig. 1).
2. Move the FUNCTION Selector to the TAPE position (Fig. 1).
3. Insert the Microphone Plug into either of the MIC INPUT Jacks (See Fig. 13) and follow instructions 3 thru 9 from Section C.

### C. How to Record from an Internal Source (AM, FM, PHONO, AUX).

Move POWER Switch to ON (Fig. 1).

1. Move the FUNCTION Selector (Fig. 1) to the desired source, (AM, FM, FM STEREO, PHONO or AUX; not TAPE).
2. Disconnect the Microphones from the MIC INPUT Jacks, if previously used.
3. Use the PAUSE Button to stop tape movement (See p. 13, #6). This will allow you to set the proper recording level without actually recording.
4. While depressing the RECORD Button, insert a blank 8-track cartridge (Guide Notch to the right, as shown in Fig.



14) into the Tape Slot. When the Cartridge is firmly seated and locked-in, one of the Program Indicator Lights will be illuminated to indicate the Program on which you are recording. The Record LEVEL Meters will be illuminated and indicate the relative recording level.

5. The RECORD LEVEL Controls should be adjusted so that the pointers of the Record LEVEL Meters will enter the Red area of the Meters only occasionally, on loud sounds.
6. Set the Tape Mode Switch to CONT. Push PROGRAM Selector Button and repeat until desired recording area is reached. Reset Tape Mode Switch to EACH or 4 position.
7. To begin recording, release the PAUSE Button (See page 13, #6).
8. If the material that you are recording is longer than the length of one program, be sure to place the Tape Mode Switch in the "4" or "Cont." mode.

**WARNING.** When you have recorded all 4 programs – STOP. Otherwise, the unit will go on to the next program and erase your previous recording by recording over it.

9. When you are finished recording, use the PAUSE Button to stop tape movement and remove the cartridge from the Tape Slot. Release PAUSE Button. Move the POWER

Switch on main unit to OFF. This will turn off the power to the entire unit. The tape cartridge should be pulled completely out of the unit when not being used.

### ERASING RECORDINGS

When a new recording is made, the previous recording is automatically erased. In this way cartridges may be re-used as often as desired.

To erase a cartridge without making a new recording, proceed as follows:

Move POWER Switch to ON. (Fig. 1)

1. Move the FUNCTION Selector to the TAPE position. (Fig. 1)
2. Disconnect the Microphones from the MIC INPUT Jacks.
3. Move the RECORD LEVEL Controls all the way to the left.
4. While depressing the RECORD Button, insert the cartridge that you wish to erase.

When recording, any blank or previously recorded tape should be indexed to the program change point. This point can then be used as a reference point for your recordings. Examine the tape which is visible through the opening of the cartridge. If the metallic sensing tape cannot be seen, set the Tape Mode Switch to the 4 position and insert the cartridge. Press the PROGRAM Selector Button repeatedly to



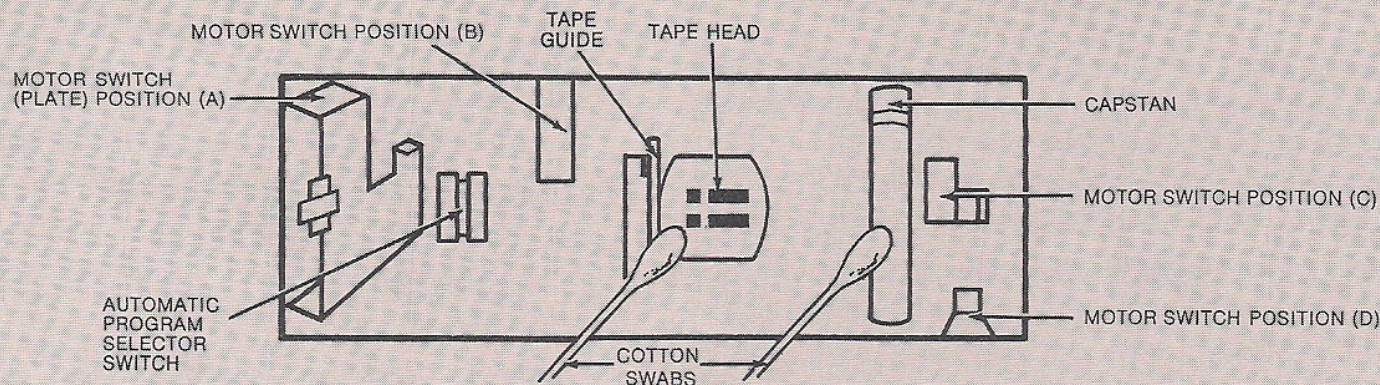


Figure 15

advance the tape to program 4. Play the remaining tape or use FAST FORWARD to advance the tape. This procedure will allow you to start recording at the beginning of Program 1.

NOTE: You will have to remove and reinsert the cartridge while depressing the RECORD Button in order to start recording.

If the Tape Mode Switch is left in the Continuous (CONT.) Position, the unit will record all four programs of the tape and then repeat. This will erase previously recorded material (See p. 15, Section C, No. 8).

## MAINTENANCE

### TAPE UNIT CLEANING (Refer to Figure 15)

During normal operation, oxide particles are loosened from

the tape and build up on the Tape Head, the Automatic Program Selector Switch, Tape Guide, and the Capstan. This tape unit must be cleaned at regular intervals (at least every 10 operating hours) since this oxide accumulation will cause poor sound quality and possibly affect the operation of the unit.

Clean as follows:

1. Remove the tape cartridge from the tape slot.
2. While holding the Tape Door open, look at the inside of your tape unit. Locate the motor Switch (See Fig. 15). This switch may be in any of the four positions shown in Fig. 15, labeled A,B,C or D.
3. Turn main unit on by moving the POWER Switch (See Fig. 1) to the ON position. Depress the Motor Switch (in



location A, B, C or D) with the eraser end of a pencil. This causes the capstan to rotate.

4. Clean the capstan (while rotating), the Automatic Program Selector Switch, the Tape Head and the Tape Guide with Zenith Tape Head Cleaner (Part No. 929-126 or 929-129). Specific directions come with these cleaners.
5. Allow unit to dry before using again.

NOTE: If Zenith Tape Head Cleaner is not available, use a cotton swab (Zenith Part No. 929-128) dampened in high purity isopropyl alcohol.

CAUTION: Do not use other commercial tape head cleaners or cleaning cartridges, as they may react unfavorably with

the material used in the manufacture of the tape head. Do not clean the head with any sharp or metal object. Do not use a brush with a metal band around the bristles. Do not allow any cleaning materials to fall into the tape assembly.

#### **TAPE HEAD DEMAGNETIZING**

The Tape Head, after a long period of time, will acquire some magnetism. A Tape Head that is magnetized will show a definite loss of high frequency response and an increase in noise level. Use any commercially available head demagnetizer, following the instructions included with the unit to demagnetize the head.



## SPECIFICATIONS

### Semiconductors:

Tuner/AMP . . . . . 1-FET, 3-ICs, 21-Transistors (+1 for AGC Amp, 3-FM Mute, 2-FM Power Switch), 17-Diodes, 1-Zener, 2-Rectifiers.

Tuner Section . . . . . Superheterodyne. Tuned RF Stage on AM and FM with Dual Gate MOS FET on FM. 2-Ceramic Filters. Phase Locked Loop IC Stereo Multiplex Decoder. Tuning Meter. FM Mute.

FM Tuner . . . . . Sensitivity: 2.8  $\mu$ V  
Selectivity: 40.0 dB  
Capture Ratio: 2.0 dB  
Image: 50.0 dB  
Stereo Separation: 30.0 dB

AM Tuner . . . . . Sensitivity: 350.0  $\mu$ V/m  
Selectivity: 30.0 dB  
Image: 75.0 dB

Frequency Range . . . . . FM . . . 88 to 108 MHz.  
AM . . . 540 to 1600 KHz.

Intermediate Frequency . . . . . FM . . . 10.7 MHz.  
AM . . . 455 KHz.

Antennas . . . . . FM . . . Dipole Antenna. External FM Antenna Connections (300 ohm).  
AM . . . Built-in Wave-magnet.® External AM Antenna Connections.

Amplifier Section . . . . . Complementary Symmetry Output with Darlington-Type Transistors. Output Transformerless (OTL), Input Transformerless (ITL) Circuit. Hi and Lo Filters.

Rated Power Output per Channel into 8 Ohms. . . . . 15 Watts min. sine wave continuous average power (often called RMS power) from



	40 to 18,000 Hz with no more than 1/2% total harmonic distortion.		
Tape Deck . . . . .	8-track, 2 channel cartridge recorder/player with illuminating Program Indicator Lights pushbutton program selector, recording level controls with meters, fast forward, pause button, mode switch, ready light and mic jacks. Microphone included.	Phono Cartridge and Stylus. . .	Shure Magnetic Cartridge with Genuine Diamond Stylus (Zenith Part No. 56-641) for playing 33 1/3 and 45 R.P.M. records. Optional accessory Sapphire tip stylus (Zenith Part No. 56-641-01) is needed to play 78 R.P.M. records.
Tape Speed . . . . .	3 3/4 inches per second (ips).	Power Supply . . . . .	110 to 125 Volts, 60 Hz.
Record Changer . . . . .	3 speeds (33 1/3, 45, 78 R.P.M.) with slide-type Speed, Record Size and Mode Selectors, Low-Mass Tone	Energy Consumption. . . . .	TUNER/AMP-28 watts. PHONO/AMP-34 watts. TAPE/AMP-43 watts.

Specifications Subject to Change without Notice.



## HOW TO USE ACCESSORIES WITH YOUR ZENITH STEREO SYSTEM

Jacks are provided on the back of your stereo unit to allow connecting optional equipment. See page 6.

### TO USE AN EXTERNAL TAPE PLAYER DECK.

Connect the output cables of the external tape unit to the AUX INPUT Jacks. Set FUNCTION Selector on main unit to AUX. FOLLOW THE DIRECTIONS SUPPLIED WITH THE EXTERNAL UNIT.

**Note.** With the external tape player connected to the AUX INPUT Jacks, you will have the use of both the built-in and external tape playback units.

### TO USE AN EXTERNAL TAPE RECORDER/PLAYER DECK.

To connect the playback section of the external tape unit, follow the instructions above under "TO USE AN EXTERNAL TAPE PLAYER DECK." To connect the recording section of the external tape unit, first unplug the two pin plugs (White

and Red) of the built-in tape unit from the TAPE RECORD or TAPE OUT Jacks. Connect the input cables of the external tape unit to the TAPE RECORD or TAPE OUT (White and Red) Jacks. Set FUNCTION Selector to program source (AM, FM etc.) and FOLLOW THE DIRECTIONS SUPPLIED WITH THE EXTERNAL UNIT.

**NOTE.** With an external tape recorder/player connected, the recording section of the built-in tape unit is not operative.

Your Zenith Dealer has a complete line of Zenith stereo accessories designed to match your Zenith system - including 8-Track Tape Decks, Extension Speakers, Stereo Headphones, Record Changers, Microphones, Blank Tapes and Replacement Parts. See your Zenith Dealer first!



# YOUR ZENITH WARRANTY

## Consumer Protection Plan for Zenith Console Stereo Products

Welcome into the Zenith family! We believe that you will be pleased and satisfied with the performance of your Zenith Console Stereo. Please read this Consumer Protection Plan carefully. It is a "LIMITED WARRANTY" as defined in the U.S. Consumer Product Warranty and Federal Trade Commission Improvement Act. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state within the U.S.A.

### ZENITH'S RESPONSIBILITY

**SERVICE LABOR**—For a period of 90 days from date of purchase Zenith will pay for service labor by a distributor-approved Zenith service center when needed as a result of manufacturing defects. This applies only in the U.S. and Canada.

**PARTS**—New or rebuilt replacements for factory defective parts will be supplied for 90 days from date of purchase. Replacement parts are warranted for the remaining portion of the original warranty period.

**HOME SERVICE**—Warranty service for console stereo will be provided in the owner's home.

**NOT COVERED**—Installation, adjustment of customer controls in the home and installation or repair of home antenna systems are not covered by this warranty; nor is damage due to misuse, abuse, or negligence. Any alteration of the product after manufacture voids this warranty in its entirety.

**IMPORTANT: OWNER REGISTRATION**—Please fill out and mail your Owner Registration Card. It is imperative that Zenith know how to reach you promptly if we should discover a safety problem that could affect you.

**WARRANTY SERVICE**—For warranty service information, contact your Zenith dealer preferably, or any distributor-approved Zenith service center. Parts and service labor that are Zenith's responsibility (see above) will be provided without charge. Other service is at the owner's expense. If you have any problem in obtaining satisfactory warranty service, write to: Customer Services, Zenith Radio Corporation, 11000 Seymour Street, Franklin Park, Illinois 60131.

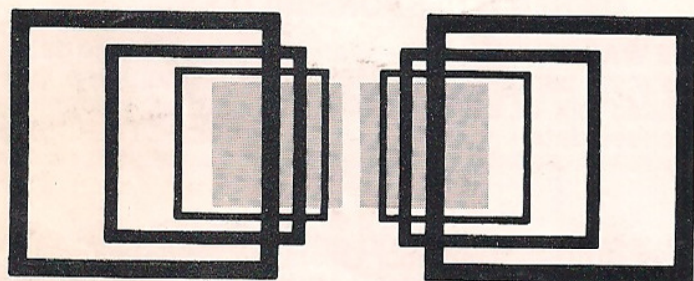
### OWNER'S RESPONSIBILITY

**EFFECTIVE WARRANTY DATE**—Warranty begins on the date of first customer purchase. For your convenience, keep the dealer's dated bill of sale or delivery ticket as evidence of the purchase date.

**OPERATING GUIDE**—Read your Operating Guide carefully so that you will understand the operation of your console and how to adjust the customer controls.

**ANTENNA**—Reception problems caused by inadequate home antennas or faulty antenna connections are the owner's responsibility.





ZENITH RADIO CORPORATION • 1900 NORTH AUSTIN AVENUE • CHICAGO, ILLINOIS 60639

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